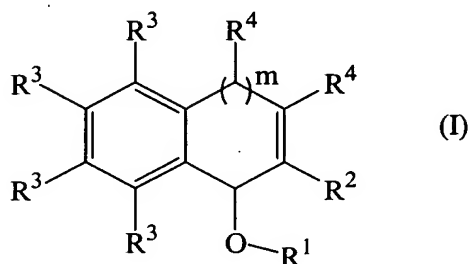


The Claims

What is claimed is:

- 5 1. A process for making a compound of formula



wherein m is 0, 1 or 2;

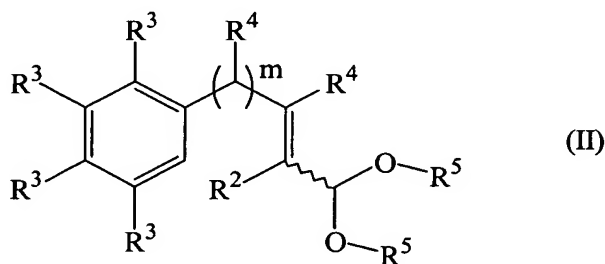
- 10 R¹ represents a formyl group, a -COCOOH group or a group of formula $-(CO)_n-R-T$, in which n is 0 or 1, R is a C₆H₄ group, C₁₋₅ alkanediyl or alkenediyl group and T is OH, COOH or a hydrogen atom;

R² represents a C₁₋₆ alkyl or alkenyl group;

- at least one R³ represents a hydrogen atom and the other R³ represent each a hydrogen atom or a C₁₋₅ alkyl, alkenyl or alkoxy group; and
- 15

R⁴ represents a hydrogen atom, a phenyl group or a R² group;

comprising the cyclization, at a temperature above 10° C, of the corresponding compound of formula



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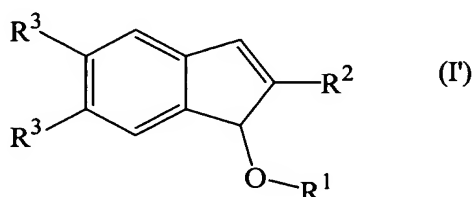
wherein each R⁵, taken separately, represents a formyl group or a $-(CO)_n-R-H$ group, or the R⁵, taken together, represent a $-(CO)_n-R-(CO)_n-$ group or a -COCO- group;

the wavy line indicates that the configuration of the carbon-carbon double bond is E or Z or a mixture thereof; and

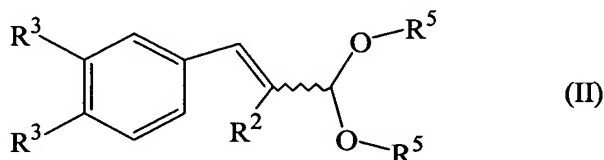
m, n, R, R², R³ and R⁴ have the meaning as indicated above;
 in the presence of a catalyst selected from the group consisting of strong mineral protic acids, sulphonic acids, acidic zeolites and Lewis acids.

5 2. A process according to claim 1, wherein m is 0 or 1.

3. A process according to claim 1, wherein the compounds of formula (I) are of formula



and are obtained by cyclization of the corresponding compounds of formula

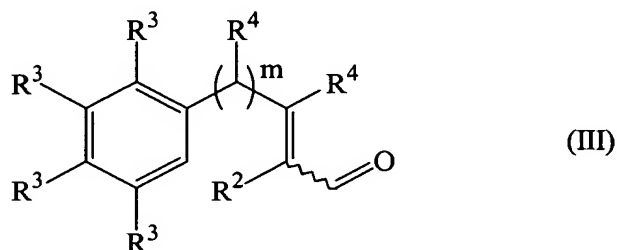


wherein R¹, R², R³ and R⁵ have the same meaning as in claim 1.

4. A process according to claim 1, wherein the catalyst is selected from the group consisting of H₂SO₄, p-toluenesulphonic acid, NaHSO₄, KHSO₄, H₃PO₄, HCl, HNO₃, and BF₃ and its adducts with C₂₋₆ ethers or with C₂₋₆ carboxylic acids, poly(styrene sulphonic acid) based resins, K-10 Clay, SnX₄, FeX₃ and ZnX₂, X representing a halogen atom, a C₁₋₆ carboxylate, or a C₁₋₇ sulphonate.

5. A process according to claim 4, wherein the catalyst is H₃PO₄, FeX₃ or ZnX₂, X having the same meaning as in claim 4.

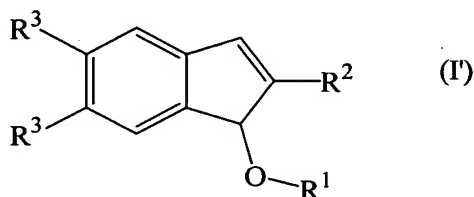
6. A process according to claim 1, characterized in that it further comprises the step of generating *in situ* the compound of formula (II) starting from the corresponding enal of formula



wherein R², R³, R⁴ and R⁵ have the same meaning as indicated in claim 1.

7. A process according to claim 6, wherein the compound of formula (II) is an acetal or an acylal.

8. A compound of formula



wherein one R³ is a hydrogen atom and the other R³ is a C₁₋₅ alkyl group, which n is 0 or 1, R is a C₆H₄ group, C₁₋₅ alkanediyl or alkenediyl group and T is OH, COOH or a hydrogen atom; and

R² represents a C₁₋₆ alkyl or alkenyl group.

9. A compound according to claim 8, wherein the compound is the 2-methyl, the 2,5-dimethyl or the 2,6-dimethyl derivative of compound of formula I.